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ABSTRACT

The most important task of development in Saudi Arabia is the cultivation of indigenous manpower to operate the equipment and run the factories. The Kingdom has recognized the importance of education and established a modern curriculum (elementary, junior, senior high) starting in the 1950s. Although there is some resistance to technical training by the populace (since they regard professional occupations as more desirable), vocational and technical training is growing. One means of semi-professional training is the Vocational Industrial School, for postsecondary training in technical skills. The first Vocational Industrial School opened in 1966. Now several such schools provide a two- or three-year technical education for the highest level of skilled personnel. For adolescents, among whom there has been a big dropout problem, the Ministry of Education operates several prevocational training schools. These programs operate six or seven hours a day, five days a week, for forty weeks a year. The government has also begun vocactional training in Vocational Training Centers (VTC) of males 18 to 30 years of age. With the construction of more VTCs, there will be an annual capacity for 7,200 trained persons to graduate in 1982. In addition to these programs, less-than-baccalaureate-degree programs are sponsored by other ministries, such as health care training and civil engineering skills training. More money and manpower is constantly being made available for the training effort which is a priority in Saudi Arabia. (KC)

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A SURVEY OF TECHNICAL AND SKILLS TRAINING IN SAUDI ARABIA

by

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Introduction

The founder of Saudi Arabia, King Abdul Aziz ibn Saud, worked from the early 1900's until his death in 1953 to establish a modern state. During this period there was a growing awareness of the crucial role of education and training in the modernization process. As a result, the eradication of illiteracy through mass education became the keystone of national policy in 1950.

A recognition of the gap between what was being taught in the few existing schools and what would be required by society in the decades ahead led to the establishment of the Ministry of Education in 1953. Since that time, new modern schools and curricula have been advocated in order to introduce the benefits of technological progress while preserving Islamic traditions.

The ultimate success of the various education and training endeavors cannot be determined as yet since little more than a generation has passed from the beginnings of mass education to the present. However, progress thus far is undeniably impressive and the ambitious plans for human resource development merit notice.

Education System

The secular education structure adopted by the Saudi government follows the four-stage pattern found in many other

countries. Children start with kindergarten, then six years of primary (elementary) school beginning at age six, three years of intermediate school and three years of secondary school.[1] Students are advanced to the next higher grade when they pass an end of year promotion exam. With the exception of kindergarten, standardized certificate examinations, which are prepared, marked and moderated by the Ministry of Education Examination Unit, control progress between each stage.[2] (Dunipace, 1977, p. 189)

Male and female students attend separate schools. However, both boys and girls follow the same curriculum in the primary stage. Beginning in intermediate school, curriculum options separate males into various program specializations. Vocational and technical programs are available, but because white collar jobs, with their higher prestige, are preferred the academic and commercial programs are the most sought after.

From a modest base, schools for boys and girls began to spread throughout the Kingdom. They grew in number during the 1960's and 70's to the point where two or more educational facilities were dedicated every week. (Alhegelan, 1980, p. 5)

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[1]Children can begin kindergarten when they are four years old and attend for a maximum of two years. When they reach age six, they are promoted to the primary stage. Children can also begin their general education at the primary stage without having attended kindergarten.

[2]The Ministry of Education plans to discontinue the standardized certificate exam which presently controls admission to an intermediate level education. When this policy is implemented, promotion from grade 6 to 7 will be based on examinations prepared and scored at the local school level.

This rapid expansion has made free education, from kindergarten through the post-secondary level, available to the majority of Saudi youth.[3] In addition, evening classes are conducted for adults who, for one reason or another, did not complete secondary school.

Various opportunities exist for all Saudis to become educated, if they desire it, so far as their natural talents and motivation permit. School attendance is not required by law; however, the value of an education is appreciated. This is evidenced by enrollment data which shows that with the increased availability of schools, the number of students in attendance at all levels has quadrupled in the last ten years. ("The Kingdom," 1979, p. 8)

The Saudi emphasis on education and development has been described as the most far reaching effort ever made within a fairly concentrated period of time. This effort reflects oil wealth and the Government's ambition to transform the Kingdom into a prosperous industrial albeit Islamic and conservative nation.

Manpower, the Weak Link in Development

A serious constraint to the development of a modern and diversified industrial base is the critical shortage of trained manpower. This shortage has been a nagging problem

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[3]There are a number of private schools which charge fees. Those established for foreign children are, in many cases, co-educational and provide instruction from primary through intermediate grades.

which is becoming more acute as the economy continues its explosive growth. The late King Faisal recognized this problem when he endorsed vocational education and training. "This country", he declared, "in this particular stage of its development, is in greater need of adopting the vocational trend, because the implementation and carrying out of projects require manpower, and the manpower should be drawn from the country's own sons." (Dunipace, 1977, p. 208) However, because of Saudi Arabia's limited human resources, a general disdain for manual labor,[4] and a shortage of skilled manpower, it is estimated that between 70 and 75 per cent of the present work force are aliens.

Foreign workers currently provide the bulk of the skilled labor for a native population of around 6 to 8 million Saudis. (Ibrahim, 1978) Despite this influx of guest workers, it is clear that the indigenous population must be educated and trained for modernization. The mass importation of expatriate workers, therefore, is only a short term remedy to the manpower problem until vocational and technical education/ training can produce a skilled Saudi work force.

Manpower - including education, training and level of employment is one of the important determinants of progress in developing a modern industrial infrastructure. As Table 1

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[4]The findings of a study conducted in 1974 indicate that Saudis don't object to technical work when it leads to opportunities for training and advancement.

Table 1

Estimated Manpower Distribution in

Various Occupational Groups

(Thousands)

Occupational Groups	(1400 AH) 1980 AD Saudi	1980 Non-Saudi
Managers & Officials	8.7	12.4
Professionals	52.9	23.5
Technicians & sub-Professionals	33.4	81.3
Clerical workers	99.6	121.8
Sales workers	97.2	112.6
Service workers	134.5	145.2
Operatives	57.1	51.4
Skilled workers	93.5	101.9
Semi-skilled workers	265.0	162.5
Sub Total	841.9	812.6
Unskilled workers	296.4	-
Farmers	281.0	-
Bedouins	98.7	-
Sub Total	676.1	-
Grand Total	1,518.0	812.6

Source: data from the Ministry of Planning

shows there is a big gap between the number of skilled Saudis and non-Saudis employed in various occupations. This table also shows a pool of nationals in the category of unskilled workers and Bedouins. To some extent people in these categories represent a misallocation of human resources. Given appropriate education/training a number of these "underemployed" Saudi nationals along with young men of school age could provide more of the skilled manpower so necessary for nation building.

The ability to correct manpower deficiencies is recognized as a critical requirement for continued industrial growth. The Kingdom has, therefore, launched ambitious programs for expanding and improving vocational and technical schooling opportunities. Vocational and technical schools have been and are being established by various government agencies and the private sector. However, the Ministry of Education and Ministry of Labor and Social Affairs conduct the most expansive effort which serve the largest number of participants.

Vocational and technical education are presently the responsibility of the Ministry of Education (MOE) while vocational training is under the jurisdiction of the Ministry of Labor and Social Affairs (MLSA).[5] It should be noted that vocational training conducted by MLSA functions independent

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[5]Plans to combine vocational and technical education with vocational training into one organization have been formulated. The new organization is to be governed by an administrative board with members from the private and public sectors.

of the general education system. This is true to the extent that potential trainees are seldom referred by MOE schools. The principal means of recruiting trainees for vocational programs are word of mouth recommendations by graduates and advertisements in both print and broadcast media.

Vocational and technical schools run by the MOE and MLSA are completely free. Instructional materials, protective clothing, medical care, meals, transportation to and from school, and frequently housing are now provided. In addition, a monthly stipend is paid so that even those with a need for immediate income can attend. ("Vocational Training," Note 1)

Vocational and Technical Education

The Ministry of Education operates five secondary level Vocational Industrial Schools which provide vocational and technical education programs. These schools are located in Riyadh, Jeddah, Hofuf (Al-Hasa), Medina, and Dammam.

Students who have passed the standardized intermediate certificate exam are eligible for admission, provided they are not above eighteen years of age. The duration of study is three academic years, grades 10, 11 and 12. (Dhallan, Note 2) On the completion of their third year (grade 12) students take a standardized exam. Those who pass this exam receive a vocational secondary education certificate and are entitled to progress on to a post-secondary program at the Higher Technical Institute. ("Educational Statistics," Note 3)

During their first year at a Vocational Industrial School, students rotate through the various programs acquiring

basic knowledge, skills and work oriented values. These foundation skills and exploratory experiences, in addition to other considerations, help students make more enlightened vocational/technical program choices. Two years of specialized follow-on study are available in: Electricity - industrial and residential; Metals - forging/heat treating, sheet metal, steel fabrication, welding and machining; and Mechanics - small engines, auto and truck repair. English language training is also included in the school curriculum.

Traditional methods of instruction (lecture/discussions, demonstrations and student exercises) are employed. These methods are enriched by audio-visual aids. In addition to various types of projectors, teacher made and commercial mock-ups, cutaways, models and other training aids are available to enhance the instructional process.

The first Vocational Industrial School (called the Royal Technical Institute) was opened during 1966 in Riyadh while the school in Dammam began operating just four years ago in a rented facility. The Dammam school now occupies a modern campus type complex which is generously equipped with all the necessary machines, tools and materials. Both the Riyadh and Dammam schools provide an excellent shop and classroom environment which is conducive to effective teaching/learning.

While the number of instructors (most of which are Saudis and Egyptians) at the Vocational Industrial Schools is near authorized staffing levels, student enrollment continues

to be below capacity. Nevertheless, plans call for expanding to thirteen such schools. ("Development Plan," 1975, p. 307) Enrollment is expected to increase, however, when existing programs are upgraded and new specializations such as electronics and petrochemical technology are introduced. Efforts are presently being made in this direction as well as provisions for boarding students who reside in areas not presently served by a Vocational Industrial School. In addition, several companies have begun to send selected employees to a Vocational Industrial School for one or two years of study with full pay and benefits. In some cases this is a temporary measure until company facilities are built; in others it's a cost effective way to prepare a skilled work force.

The multi-building facility in Riyadh which houses the Royal Technical Institute is also used by the Higher Technical Institute. Students from the Vocational Industrial, Commercial and General Secondary Schools, who pass the standardized secondary certificate exam, can elect to pursue a two or three year post-secondary technical curriculum in the Higher Technical Institute. Both the two and three year programs prepare technicians for the public and private sectors. Graduates are also encouraged to establish their own business with financial assistance from the government in the form of no-interest loans. (Sindi, Note 4) Those who complete the two year program are presently being recruited by the MLSA as potential instructors in pre-vocational and vocational training centers. They receive specialized follow-on training before taking up

an instructional assignment. Completion of the three year program is required for teaching in MOE secondary Vocational Industrial Schools. (Mohammid, Note 5)

When the first three Vocational Industrial Schools were established, technical assistance was provided by overseas experts. Specialists from France worked with the school in Jeddah, Italian advisors were posted in Riyadh, and German experts were assigned as advisors to the school in Hofuf. (Muhanna, Note 6) Presently, advisors from Germany are assisting with curriculum additions and improvement, equipment acquisitions and instructor development efforts at all the Vocational Industrial Schools and the Higher Technical Institute.

Pre-Vocational Training

Since schooling is not compulsory in Saudi Arabia, some youngsters because of family pressures, social background, discipline or for academic reasons, leave school at an early age. Many of these poorly educated adolescents would like a chance to move into the mainstream of employment. However, most face restricted job options because of child labor regulations and/or their lack of preparation for work. Consequently, some of these young men experience economic hardship or unemployment which can lead to other social problems.

For a sparsely populated country facing a serious manpower shortage, this undesirable situation was and is especially tragic. As a corrective measure the MLSA

established pre-vocational training for young male drop-outs, 14 through 17 years of age. The objective of this training effort was to provide practical skills and general knowledge which would improve their working career prospects while contributing to the overall manpower needs of the country.

The three-fold purpose formulated for pre-vocational training was to: 1) prepare trainees for re-entry into the general education system, 2) provide an initial orientation in industrial or clerical skills, and 3) prepare trainees for follow-on trade specific training at a vocational training center.

In 1974, with the assistance of an advisor from the United Nations International Children's Emergency Fund, a Pre-Vocational Training Center (PVC) was set up in each of the largest cities - Riyadh, Jeddah and Dammam. The successful experiences encountered by the first graduates encouraged other young men to apply for enrollment during succeeding years. Consequently, all three PVC's continue to provide practical training in metalworking, electricity, welding, woodworking and clerical subjects.

Classes are presently conducted seven hours a day, five days a week, for forty weeks. Two-thirds of the 1400 hour instructional program is scheduled for practical training and the remainder is devoted to general literacy development.

This opportunity for occupationally oriented learning has appealed to a number of adolescents, particularly those with four to six years of primary school. Records show that

over the years some PVC graduates have returned to school to continue their general education. The majority, however, have enrolled in a vocational training center for trade specific training.

Although the pre-vocational training effort has been successful in meeting the needs of many young male school leavers and assisting in the development of a skilled work force, shortcomings are recognized. To correct deficiencies in both facilities and training programs the MLSA is now: 1) increasing the quality and number of PVC's, as well as 2) restructuring programs and improving training with innovative instructional methods and materials.

New PVC Facilities

The PVC in Riyadh moved from a temporary facility to a newly constructed center in 1977. This center was designed and built in accordance with locally acceptable standards, however, and now requires renovations to existing shops and classrooms as well as additional support buildings.

Interim PVC facilities in Jeddah and Dammam are being replaced with campus type residential centers. These centers have been designed and will be constructed in conformance with international standards. They are to be outfitted with state-of-the-art equipment and furnishings. This modern type of residential training center will also be built in Al-Hasa, Al-Qasim and Abha. Scheduled for occupancy in 1982, each of the new centers will accommodate approximately 300 trainees, thus increasing the capacity for and availability of

pre-vocational training.

Restructured PVC Training

In the future training is to be conducted six hours a day (four hours of shop and two in a classroom), five days a week for forty weeks. This results in 200 fewer hours of instruction than presently offered; however, it is felt that improvements in the program as well as changes in the curriculum and instructional approach will compensate for the loss of instructional time.

In consideration of the relatively low educational attainment, inexperience and age of the typical trainee, the restructured PVC program is designed to provide rudimentary education, limited skill development and varied opportunities for occupational exploration, as well as career counseling. Ideally, the PVC will provide a firm foundation for follow-on trade specific training and serve as a link to vocational training centers. However, given conditions which preclude additional training, the graduate will be prepared to enter the labor force as a semi-skilled worker.

Each of the six PVC's will be capable of enrolling up to 350 trainees in nine shops and four office specializations. For purposes of organization and management, the occupational categories are grouped into five clusters, as can be seen in Table 2. This table also shows planned enrollment figures and instructor assignments.

Trainees enroll in either the Industrial or Clerical section (program of study). Those in the Industrial section

Table 2

Pre-Vocational Training Programs

	Cluster	Shops (Occup. Categories)	Trainees per Shop	Instructors per Shop
Industrial	Automotives	Auto Mechanics	60 to 75	6
	Construction	Woodworking	20 to 25	2
		Plumbing	20 to 25	2
		Construction Electricity	20 to 25	2
	Metals	Machine Shop	20 to 25	2
		Sheet Metal	20 to 25	2
		Welding	20 to 25	2
	Electro/ Mechanical	Industrial (Commercial) Electricity	20 to 25	2
		Air Conditioning and Refrigeration	20 to 25	2
Clerical	Office Occupations	Typing Office Machines Bookkeeping and Filing English Language	60 to 75	6
		Enrollment for a PVC =	280 to 350	

will rotate through each of four clusters: Automotives, Construction, Metals and Electro/Mechanical. After this introductory experience, they will be assisted in selecting a specific cluster in which they will specialize, receiving basic training in each of the included shops.

Students who register for the Clerical section will receive instruction in English and Arabic typing, office machine operation, bookkeeping, filing and other office practices. Each trainee will experience all phases of office occupations but can specialize in one or more. English language training will also be provided since both English and Arabic are used in business and commerce.

PVC Curriculum Revitalization

In addition to expanding the training capacity and restructuring the programs of study, innovative changes are being made in curriculum and instruction. Plans call for the implementation of competency based, individualized instruction. This approach has as its objective increased instructor effectiveness as well as trainee achievement. It is especially appropriate considering the cultural circumstances of Saudi Arabia and the open admissions policy in effect. As a result of open admissions, trainees have differing levels of general education, maturity, motivation and experience.

With competency based training, performance objectives are precisely stated and criterion referenced tests measure how well trainees achieve these objectives. From this

curriculum development effort flow teaching and learning activities. Instructional materials and media are also prepared and then validated against objectives. The result of this approach will be a competent graduate who can perform and a training program which is accountable.

Vocational Training

Responding to the need for trained manpower and taking into account the small number of vocational industrial school graduates and the large number of school drop-outs, the Government looked to vocational training for additional skilled workers. The International Labor Organization (ILO) was contacted for expertise and assistance and in 1962 an agreement was signed to establish a vocational training center (VTC) in a number of locations under the aegis of the MLSA.

It was decided that enrollment in a VTC would be restricted to males 18 to 30 years of age. However, a waiver of this age requirement is granted to PVC graduates, when necessary, so that they can continue their training uninterrupted. All prospective trainees are required to have completed the fifth grade in primary school. Here again, a waiver is possible on a case by case basis.

In 1963 when the first VTC began operations in Riyadh, it accepted 160 students for training in nine different vocational programs. Later the number of trade specific programs was increased to fourteen, and the enrollment grew to 450 trainees. The agreement with ILO was renewed and

expanded to include the start-up of VTC's in Jeddah, Dammam and Al-Qasim. Each of these was built to accommodate 350 trainees.

After the accord with ILO expired in 1969, the MLSA hired individuals from England to assist with the expansion of vocational training programs. Further developments included an instructor training effort, centralized purchasing and warehousing and the preparation of a standard syllabus for selected trades. Additional VTC's were subsequently established in Al-Jawf, Abha, Medina, Al-Hasa, Qatif, Hayil, Al-Baha, Tabuk, Wadi Dawasir and Mecca. (Campbell & Bukhary, 1978)

In 1976 a project agreement for technical cooperation and advisory services, designed to assist in improving and strengthening the qualitative and quantitative output of VTC's, was signed by representatives of the Kingdom and the U.S. Government.[6] The project was directed by the MLSA and Office of Foreign Financed Programs in the U.S. Department of Labor's Bureau of International Labor Affairs. The project goal is to build a strong vocational training capacity within the MLSA that will support the Kingdom's development objectives and provide skilled Saudi workers.

The strategies to achieve this goal are: 1) the strengthening of vocational training courses by developing

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[6]This project is funded entirely by the Saudi Arabian Government.

innovative instructional materials and appropriate teaching skills, 2) the expansion of the existing training capacity through a program of facility renovation and construction, and 3) the development of those managerial, administrative and procedural skills necessary to operate the vocational training system effectively.

It was determined that an important means of strengthening vocational training is the development of competency based, individualized and mediated instructional materials. These instructional materials are being developed, based upon learning theory, and utilizing a team approach. Technical specialists translate occupational requirements into specific learning objectives, based on training needs. Specialists in instructional systems design then transform these objectives into learning sequences appropriate for teaching Saudis. Instructional materials are being designed for use in a capital intensive system and incorporate a variety of visual aids (films, tapes, slides, graphics, video, etc.) developed by media specialists. Once established, the instructional system will provide a basis upon which to standardize Kingdomwide curricula. The competencies identified in the process of developing instructional materials also serve as standards for a Kingdomwide certification program. (Campbell & Bukhary, 1979, p. 50) Despite their critical importance in the training strategy, good instructional materials by themselves will accomplish little unless skilled and motivated instructors are trained in their use. Therefore, the project

also emphasizes the development of the teaching skills needed to implement the Ministry's vocational training strategy.

Construction of new VTC's, together with the MLSA repair and alteration program, will increase the physical capacity of vocational training. The training capacity will also be increased through a reduction of the average length of time required for trainees to achieve predetermined skills. This will be accomplished through careful restructuring of the training curricula. The combined effect of construction programs and reduced average training time will be to increase annual capacity for graduates from approximately 2,700 to 7,200 by 1982.

In addition to good materials and trained instructors, the MLSA vocational training system will require skilled managers, an appropriate organizational structure and relevant administrative procedures. Although good administration and management are the keys to the successful operation of any vocational training system, these skills will be especially important in the advanced instructional system being established in Saudi Arabia, which will require careful coordination of training resources and close monitoring of trainee progress.

Special emphasis will also be placed on vocational guidance and recruitment activities, since a vocational training system cannot be successful unless it attracts and motivates trainees. If the expanded system is to operate near capacity, the annual intake must be increased substantially. Recruitment activities present a special challenge

in view of the unfamiliarity of many young Saudis with vocational opportunities.

According to projected plans, the Kingdomwide Vocational Training System will be completed in 1985. It will be large, decentralized and innovative when compared with what previously existed. There will be a strong central directorate within the Ministry of Labor and a comprehensive national instructor training institute.

A fundamental philosophy underlying this joint effort is that the success of the project will be measured by the extent to which a professional, self-sustaining Saudi leadership is established to manage vocational training. The ultimate test of how well this goal is met will be the capacity of that leadership to adapt training technology and programs as needs change, without further reliance on technical assistance.

Mobile Training

In order to promote vocational training in remote parts of the Kingdom, with neither the population density nor employment demand to support a training center, the MLSA uses mobile training units. These self-contained units became available in 1978 and consist of tractor trailers outfitted as shops and classrooms. Tents are sometimes used to provide additional work and study space. Mobile units are equipped with the necessary machines, test equipment, tools and materials for conducting short courses in: welding, auto mechanics or woodworking.

Mobile training units are not intended to supplant PVC's and VTC's, but rather to complement their efforts by providing vocational training to dispersed or isolated rural populations. Enrollment in one of the established training centers is preferable in order to receive more extensive training. However, this outreach effort has proven popular with residents of rural areas for reasons such as: 1) the great distances between outlying villages and cities with training centers, 2) the cultural based objections to a young man leaving his family to live in a city while attending a training center, and 3) the need for basic multi-trade training which will fit a man for employment in his village.

Training Supported by Other Ministries

In addition to the government sponsored vocational and technical programs discussed, other, less than baccalaureate degree, occupational education/training efforts are conducted by various ministries. Their aim is to develop a supply of skilled employees for the public sector. For example, the Ministry of Interior established a Technical Assistants Institute in 1965. This institute offers a two year program of study in: surveying, construction supervision, architectural design, road building, water, sewage and hygiene. Graduates are employed by the Ministry of Interior and other government agencies. ("Educational Statistics," Note 3)

The Ministry of Health operates schools of nursing and health training institutes. The schools of nursing prepare

female technical nurses. Women are admitted to the program with a primary education certificate or better and study for three years. Health training institutes admit male students who have completed, as a minimum, eighth grade. A three year program of study prepares graduates as: health supervisors; technical assistants for work in a pharmacy, laboratory or operating room; statistical assistants; nutrition assistants or technical nurses. ("Educational Statistics," Note 3)

Excellent vocational and technical training programs are conducted for enlisted personnel by the various branches of the armed forces. Many of these programs provide skills and knowledge directly transferable to a civilian occupation. Since most enlisted men have not completed secondary school, this option offers another opportunity to get qualified for a skilled job which can be pursued when they are discharged.

Company Training

Quasi-government businesses such as Saudi Arabian Airlines and the Arabian American Oil Company have established modern well equipped and expertly staffed employee training facilities. A wide range of tailor made programs are regularly conducted in these proprietary centers to train and upgrade skilled craftsmen and technicians so that they can participate fully in the work of the company.

Classroom and shop training is frequently augmented by counterpart and/or in-plant efforts such as vestibule and on-the-job training (OJT). This "over the shoulder"

and "hands on" type of training provides the special knowledge, skills and experience required for a specific job. Continuing education in order to update craftsmen and technicians on new technology and trends is provided through short courses, workshops, etc. in Saudi Arabia and abroad. Such efforts enable Saudi Arabs to assume positions of increasing complexity and responsibility.

Multi-national companies, under contract with government agencies, are also providing vocational and technical training. Some even operate and/or monitor training programs designed to help Saudi sub-contractors perform.

Existing inducements for OJT by the private sector include legislative incentives and generous government subsidies for approved training. A provision in the Saudi Labor Law requires that every employer of 100 or more employees is to offer vocational/technical training to Saudis in a proportion not less than 5% of the total number of employees.

An annual appropriation of twenty million riyals (approximately six million U.S. dollars) has been made available through the Ministry of Industry and Electricity for OJT. The training subsidy project is coordinated by the MLSA; however, the rules and procedures for issuing subsidies were stipulated by a Council of Ministers' decree. These rules include provisions for such training to be done within the Kingdom and abroad. ("Rules for Issuing Training," Note 7)

In Quick Appraisal

Men and machinery are pouring into the Kingdom to install the physical foundations of growth. Development in Saudi Arabia is, by most standards, meeting with success. The most important task of development, however, is the cultivation of indigenous manpower to operate the equipment and run the factories.

The key to the Kingdom's economic future is the development of its manpower resources. In the final analysis, many would agree that this is where success resides.

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TRADE TRAINING PROGRAMS OFFERED BY, AND TRAINEE CAPACITIES FOR,

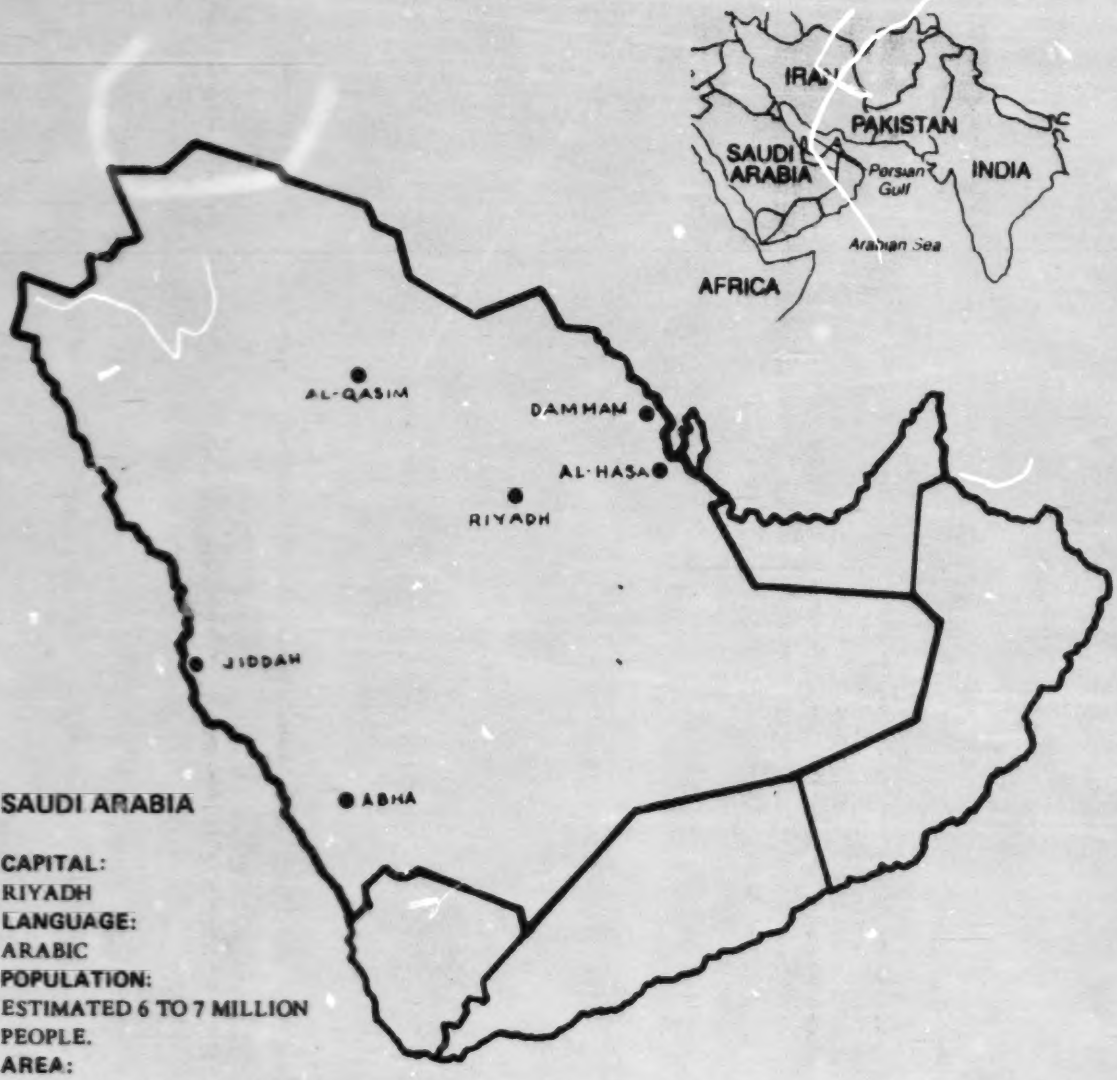
EXISTING AND NEW VOCATIONAL TRAINING CENTERS

Vocational Training Centers / Center Status / Trade Training Programs	Dammam	Jeddah	Riyadh	Abha	Al-Qasim	Al-Baha	Al-Hasa	Al-Jawf	Hayil	Mecca	Medina	Qatif	Tabuk	Wadi Dawasir	Bishah	Jizan	Najran	Tayif
	E	E	E	E	E	E	E	E	E	E	E	E	E	E	N	N	N	N
Air Conditioning & Refrigeration	X	X	X	O	O										O	O	O	O
Auto Body Repair	O	O	O	O	O						O							
Auto Mechanics	X	X	X	X	X	X	X	X	X	X	X	X	X	X	O	O	O	O
Diesel Mechanics[1]	X	X	X	O	X	X	X	X	X	X	X	X	X	X	O	O	O	O
Electricity	X	X	X	X	X	X	X	X	X	X	X	X	X	X	O	O	O	O
Heavy Equipment Operation	O	O	O															
Machine Trades (Shop)	X	X	X	O	X			X										
Office Machine Repair	O	X	X	O	O													
Plumbing	X	X	X	X	X		O		O		O		O		O	O	O	O
Printing	X	X	X															
Radio & Television Repair	X	X	X	X	X		O			O	O							
Sheet Metal	X	X	X	O	X													
Tailoring			X															
Trowel (Building) Trades	O	O	O	X	O	O	X	X	O	X	X	X	O	X	O	O	O	O
Welding	X	X	X	X	X		O	X	O	O	O	X			O	O	O	O
Woodworking (Carpentry)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	O	O	O	O
Trainee Capacity by Ctr.	1000	1000	1000	500	500	300	300	300	300	300	300	300	300	300	300	300	300	300

Note: [1]Presently being taught as a part of Auto Mechanics. To be a separate trade in the near future.

Legend: N New Centers (under construction) O Planned Training Programs

E Existing Centers X Existing Training Programs



SAUDI ARABIA

CAPITAL:
RIYADH
LANGUAGE:
ARABIC
POPULATION:
ESTIMATED 6 TO 7 MILLION PEOPLE.
AREA:
ABOUT 725,000 Sq. MILES. EXACT BOUNDRIES ARE LARGELY UNDEFINED. NINETY PERCENT OF THE LAND IS DESERT.
CHIEF INDUSTRY:
OIL. THE KINGDOM HAS PROVEN RESERVES OF 165 BILLION BARRELS OF OIL AND 94 TRILL'CN CUBIC FEET OF NATURAL GAS.
EDUCATION:
FREE SCHOOLING IS PROVIDED FOR ALL CITIZENS AT ALL LEVELS. BOYS AND GIRLS ATTEND SEPERATE SCHOOLS.